

AMENDMENTS TO THE DRAWINGS

Enclosed is one (1) sheet of proposed drawing corrections for Figures 1-4. The proposed corrections are marked in red ink. Review and approval of the proposed drawing corrections is respectfully requested.

REMARKS

In response to the Office Action mailed March 31, 2005, Applicants respectfully request reconsideration.

Claims 28-54 have been cancelled without prejudice or disclaimer and therefore any rejections with respect to these claims should now be moot.

AMENDMENTS TO THE DRAWINGS

On pages 3-4, the Office Action states that Figures 1-4 should be designated by a legend such as --Prior Art--. This legend has been added to the drawings. Review and approval of the proposed drawing corrections is respectfully requested.

The Office objected to the drawings under 37 C.F.R. §183(a) as not showing every feature of the invention specified in the claims. The Office Action appears to be referring to independent claims 28 and 40. Although Applicants respectfully disagree with the this allegation in the Office Action, for purposes of expediting prosecution, Applicants have cancelled claims 28 and 40 and therefore this objection to the drawings should now be moot.

AMENDMENTS TO THE SPECIFICATION

On page 4, the Office Action states that "The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required." Accordingly, Applicants enclose herewith a copy of the application as filed with lines double spaced on good quality paper.

On page, of the Office Action objected to the disclosure because of informalities, indicating that the recitation Pidet, Castelain, Senn, Blanc is improper. Applicants have made the required correction herein.

AMENDMENTS TO THE TITLE

On page 4, the Office Action states that "The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The Office Action suggested the title "MULTISTANDARD DISCRETE MULTI-TONE (DMT) DIGITAL SUBSCRIBER LINE (DSL) SYSTEM." Accordingly the title has now been changed.

AMENDMENTS TO THE CLAIMS

Claims 47-50 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully disagrees with this rejection and believes that claims 47-50 are fully enabled by the specification of the present application. However, for purposes of expediting prosecution, Applicants have cancelled claims 47-50 therefore any rejections with respect to these claims should now be moot.

Claim 1 was rejected under 35 U.S.C. §102(b) as being anticipated by Bingham. In addition, claim 1 was also rejected under 35 U.S.C. §102(e) as being anticipated by Cioffi. Applicant respectfully disagrees with these rejections.

Amended claim 1 now recites a digital subscriber line transmission system using QAM modulation on $N = 4096/p$ tones spaced by 4.3125 kHz wherein p and q are powers of 2 ($p = 1, 2, 4, 8, \dots$; $q = 1, 2, 4, 8, \dots$), including at least two operating modes: a VDSL standard operating mode where all N tones are used to convey significant values; an ADSL standard operating mode where only the first n among the N tones are used to convey significant values, comprising, on the transmitter side; an inverse fast Fourier transform circuit having N frequency domain value inputs corresponding to said tones, among which only the first receive values corresponding to the n used tones, the remaining inputs being zeroed, a decimator providing one sample for every r samples output by the inverse fast Fourier transform circuit, with $r = N/n$, a digital-to-analog converter coupled between the decimator and a subscriber line; comprising, on the receiver side; an analog-to-digital converter sampling the signal on the subscriber line at a frequency F/r , where F is the operating frequency of the inverse fast Fourier transform circuit; an interpolator generating samples at frequency F from the samples provided by the analog-to-digital converter; and a fast Fourier

transform circuit operating at frequency F and receiving the samples from the interpolator through a time domain equalizer, wherein, when all N tones are used, the time domain equalizer is bypassed.

Clearly none of the art of record teaches or suggests a digital subscriber line transmission system including on the transmitter side a decimator providing one sample for every r samples output by the inverse fast Fourier transform circuit, as recited in claim 1. In Rybicki, by contrast, the decimator is only used in the receives, in relation with the FFT circuit.

Therefore, amended claim 1 distinguishes over the references of record and is in allowable condition. Claims 4-27 depend from claim 1 either directly or indirectly and are allowable for at least the same reasons.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: August 30, 2005

Respectfully submitted,

By: 

James H. Morris
Registration No.: 34,681
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
(617) 646-8000

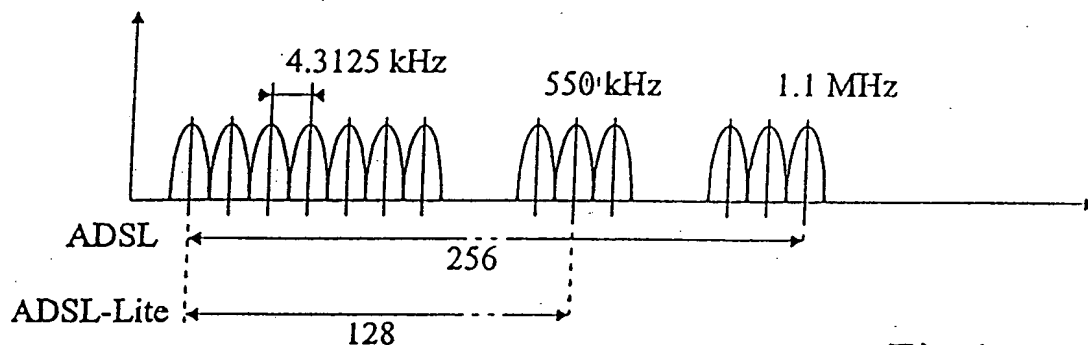


Fig 1
(Prior Art)

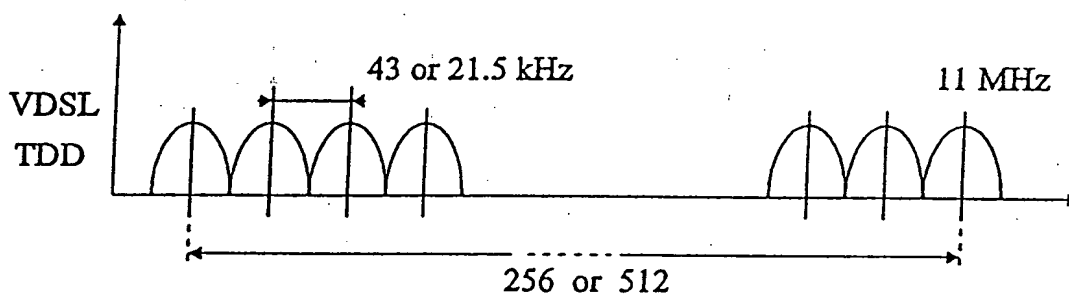


Fig 2
(Prior Art)

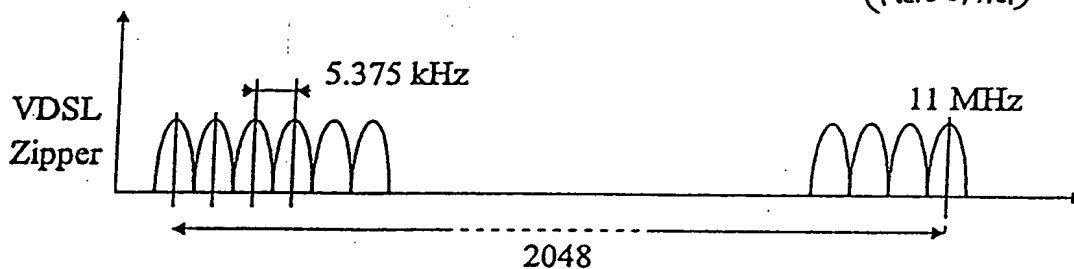


Fig 3
(Prior Art)

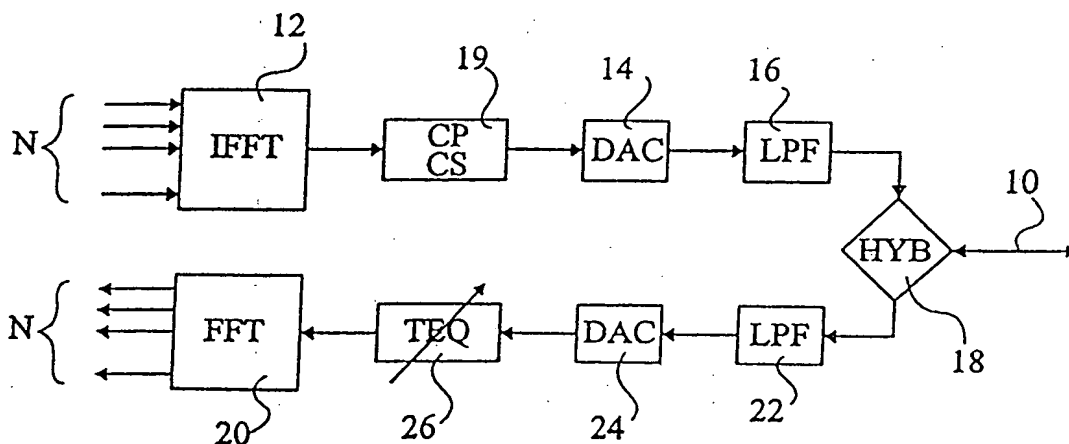


Fig 4
(Prior Art)